

REMARKS

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. In the office action mailed October 18, 2004, claims 1-60 have been rejected. In response, the Applicants have submitted the following remarks. Accordingly, claims 1-60 are pending. Favorable reconsideration is respectfully requested in view of the remarks below.

Rejections Under 35 U.S.C. § 102

Within the Office Action, claims 1-60 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pat. No. 6,744,761 to Neumann (hereinafter “Neumann”). The Applicants respectfully traverse this rejection.

Specifically, it is stated within the Office Action that “Neumann discloses a digital multimedia contact center comprising: a workflow engine operable for executing a workflow for a contact that specifies processing of the contact; a set of media routers coupled to the workflow engine, each media router operable for sending a contact associated with a particular media type to the workflow engine and operable for routing the contact to an agent if an agent is allocated to the contact;

“a dynamic automatic contact distributor coupled to the workflow engine and operable for allocating an agent to the contact when requested by the workflow and for returning an identifier for the allocated agent to the workflow engine;

“an agent desktop coupled to the workflow engine and operable for receiving a contact routed by a media router and presenting the contact to the allocated agent for processing; and a database coupled to the workflow engine for recording the processing of the contact by the allocated agent.” The Applicants respectfully disagree.

Neumann discloses a method and system for routing and tracking a plurality of incoming media streams of varying types such as faxes, e-mail, and Voice over IP. A workflow manager monitors all the media streams incoming to an enterprise. Through analysis of an incoming media stream, the manager develops attribute data for the stream. Based on the attribute data, the manager queries other systems in the enterprise for further information which will include candidate resources to handle the incoming stream. Based on the replies, the incoming stream is routed to a selected resource. According to one embodiment of the Neumann, the workflow manager uses information from an incoming message to query a skills database for destinations and routes the message to a selected destination. [Neumann, column 2, lines 5-24]. Neumann

does not disclose a workflow engine operable for executing a workflow for a contact separate from a dynamic automatic contact distributor for allocating an agent to the contact when requested by the workflow and for returning an identifier for the allocated agent to the workflow engine. Neumann also does not disclose a separate database for recording the processing of the contact by the allocated agent. Further, Neumann does not teach or disclose escalating or de-escalating a contact to a different service tier if routing criteria changes. Neumann does teach escalating a call priority of a call has not been processed within a particular delay. Neumann does not teach de-escalating a contact.

In contrast to the teachings of Neumann, the present invention discloses a tiered service model for a digital multimedia contact center that assigns an entering contact to an initial service tier based on routing criteria for the contact and may escalate or de-escalate the contact to a different service tier if the routing criteria changes. The routing criteria is initially determined based on a media type associated with the contact. The digital multimedia contact center contains a set of media routers, each of which passes a contact of a particular media type to a workflow engine which executes workflows to direct the processing of contacts at service tiers that require agent activity. Agents are allocated to contacts by a dynamic automatic contact distributor and the appropriate media router is used to route the contact to an agent. The workflow engine also executes workflows for agents to control the allocation of agents to contacts. As described above, Neumann does not teach a tiered service model for selectively escalating and de-escalating the contact to a different service tier if the routing criteria changes. Neumann also does not teach a workflow engine which executes a workflow separate from a dynamic automatic contact distributor for allocating agents. Further, Neumann does not teach separate media routers for routing the contact to an agent.

The amended independent Claim 1 is directed to a digital multimedia contact center. The multimedia contact center includes a workflow engine operable for executing a workflow for a contact that specifies processing of the contact; a set of media routers coupled to the workflow engine, each media router operable for sending a contact associated with a particular media type to the workflow engine and operable for routing the contact to an agent if an agent is allocated to the contact; a dynamic automatic contact distributor coupled to the workflow engine and operable for allocating an agent to the contact when requested by the workflow and for returning an identifier for the allocated agent to the workflow engine; an agent desktop coupled to the workflow engine and operable for receiving a contact routed by a media router and presenting the contact to the allocated agent for processing; and a database coupled to the workflow engine for

recording the processing of the contact by the allocated agent. The claim 1 is amended to include that the media routers determine a tier and are configured to escalate and de-escalate the tier. As described above, Neumann does not teach a workflow engine to execute a workflow separate from a dynamic automatic contact distributor for allocating agents. Neumann also does not teach separate media routers for routing the contact to an agent. Further, Neumann does not teach a database separate from the workflow engine for recording the processing of the contact by the allocated agent. For at least these reasons, the independent Claim 1 is allowable over the teachings of Neumann.

Claims 2-17 are all dependent on the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 2-17 are all also allowable as being dependent on an allowable base claim.

The amended independent Claim 18 is directed to a computer-readable medium having computer-executable modules, including a workflow engine to execute a workflow for a contact that specifies processing of the contact; a plurality of media routers for coupling to the workflow engine to send a contact associated with a particular media type to the workflow engine and to route the contact to an agent if an agent is allocated to the contact; and a dynamic automatic contact distributor for coupling to the workflow engine to allocate an agent to the contact when requested by the workflow and return an identifier for the allocated agent to the workflow engine. The claim 18 is amended to include that the media routers determine a tier and are configured to escalate and de-escalate the tier. As described above, Neumann does not teach a workflow engine to execute a workflow separate from a dynamic automatic contact distributor for allocating agents. Neumann also does not teach separate media routers for routing the contact to an agent. For at least these reasons, the independent Claim 18 is allowable over the teachings of Neumann.

Claims 19-31 are all dependent on the independent Claim 18. As discussed above, the independent Claim 18 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 19-31 are all also allowable as being dependent on an allowable base claim.

The amended independent Claim 32 is directed to a computer-readable medium having computer-executable modules, including an agent desktop for coupling to a workflow engine to receive a contact routed by a media router and to present the contact to an agent logged into the agent desktop for processing. The claim 32 is amended to include determining a tier which can be escalated and de-escalated. As described above, Neumann does not disclose a media router

separate from the workflow engine for routing the contact to an agent. For at least these reasons, the independent Claim 32 is allowable over the teachings of Neumann.

The independent Claim 33 is directed to a computerized method for determining a service tier for a contact in a digital multimedia contact center. The method comprises the steps of determining an initial service tier for the contact based on routing criteria for the contact; de-escalating the contact to a lower service tier if a change in the routing criteria does not satisfy pre-defined criteria for the initial service tier; and escalating the contact to a higher service tier if a change in the routing criteria satisfies pre-defined criteria for the higher service tier. As described above, Neumann does not disclose or teach a tiered service model for escalating or de-escalating the contact to a different service tier if the routing criteria changes. For at least these reasons, the independent Claim 33 is allowable over the teachings of Neumann.

Claims 34-36 are all dependent on the independent Claim 33. As discussed above, the independent Claim 33 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 34-36 are all also allowable as being dependent on an allowable base claim.

The independent Claim 37 is directed to a computer-readable medium having computer-executable instructions comprising: determining an initial service tier for a contact in a digital multimedia contact center based on routing criteria for the contact; de-escalating the contact to a lower service tier if a change in the routing criteria does not satisfy pre-defined criteria for the initial service tier; and escalating the contract to a higher service tier if a change in the routing criteria satisfies pre-defined criteria for the higher service tier. As described above, Neumann does not disclose or teach a tiered service model for escalating or de-escalating the contact to a different service tier if the routing criteria changes. For at least these reasons, the independent Claim 37 is allowable over the teachings of Neumann.

Claims 38-40 are all dependent on the independent Claim 37. As discussed above, the independent Claim 37 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 38-40 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a computer system. The system includes a processing unit; a memory coupled to the processing unit through a bus; and a service tiering process executed from the memory to cause the processing unit to determine an initial service tier for a contact in a digital multimedia contact center based on routing criteria for the contact, to de-escalate the contact to a lower service tier if a change in the routing criteria does not satisfy pre-defined criteria for the initial service tier, and to escalate the contract to a higher service tier if a change in the routing criteria satisfies pre-defined criteria for the higher service tier. As

described above, Neumann does not teach escalating or de-escalating the contact to a different service tier if the routing criteria changes. For at least these reasons, the independent Claim 41 is allowable over the teachings of Neumann.

Claims 42-44 are all dependent on the independent Claim 41. As discussed above, the independent Claim 41 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 42-44 are all also allowable as being dependent on an allowable base claim.

The independent Claim 45 is directed to a computer-readable medium having a data structure for a contact detail record, including a contact ID field containing data representing a contact identifier for a contact associated with the contact detail record; a media type field containing data representing a media type for the contact identified by the contact ID field; a contact class ID containing data representing a classification for the contact identified by the contact ID field; an assigned agent ID containing data representing an agent assigned to handle the contact identified by the contact ID field; and a plurality of contact state fields, each contact state field comprising: a contact state field containing data representing a state of the contact identified by the contact ID field at a particular time; and a timestamp field containing data representing the particular time associated with data in the contact state field. Neumann does not disclose or teach a contact state field containing data representing a state of the contact identified by the contact ID field at a particular time. Neumann also does not disclose a timestamp field containing data representing the particular time associated with data in the contact state field. For at least these reasons, the independent Claim 45 is allowable over the teachings of Neumann.

Claim 46 is dependent on the independent Claim 45. As discussed above, the independent Claim 45 is allowable over the teachings of Neumann. Accordingly, the dependent Claim 46 is also allowable as being dependent on an allowable base claim.

The independent Claim 47 is directed to a computer readable having a data structure for an agent record comprising an agent ID field containing data representing an agent identifier for an agent associated with the agent record; an agent class ID field containing data representing a classification for the agent identified by the agent ID field; an assigned contact ID field containing data representing an identifier for a contact assigned to the agent identified by the agent ID field; and a plurality of agent state fields, each agent state field comprising: an agent state field containing data representing a state of the agent identified by the agent ID field at a particular time; and a timestamp field containing data representing the particular time associated with data in the agent state field. Neumann does not disclose or teach an agent state field

containing data representing a state of the agent identified by the agent ID field at a particular time. Neumann also does not disclose a timestamp field containing data representing the particular time associated with data in the agent state field. For at least these reasons, the independent Claim 47 is allowable over the teachings of Neumann.

The independent Claim 48 is directed to a method of communicating between a media router and a contact workflow subsystem in a digital multimedia contact center. The method comprises the steps of: issuing, by the media router to the contact workflow subsystem, a startworkflow call including an identifier for the media router and attributes of a contact; and returning, by the contact workflow subsystem to the media router, an identifier for a workflow for the contact in response to receiving the startworkflow call. As described above, Neumann does not disclose a media router issuing a startworkflow call to a contact workflow subsystem, including an identifier for the media router and attributes of a contact. For at least these reasons, the independent Claim 48 is allowable over the teachings of Neumann.

Claims 49-52 are all dependent on the independent Claim 48. As discussed above, the independent Claim 48 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 49-52 are all also allowable as being dependent on an allowable base claim.

The independent Claim 53 is directed to a method of communicating between a media router and an agent workflow subsystem in a digital multimedia contact center. The method comprises the steps of: issuing, by the media router to the agent workflow subsystem, a startworkflow call including attributes of an agent; and returning, by the agent workflow subsystem to the media router, an identifier for a workflow for the agent in response to receiving the startworkflow call. Neumann does not disclose an agent workflow subsystem returning to the media router an identifier for a workflow for the agent in response to receiving the startworkflow call. For at least these reasons, the independent Claim 53 is allowable over the teachings of Neumann.

Claims 54-55 are all dependent on the independent Claim 53. As discussed above, the independent Claim 53 is allowable over the teachings of Neumann. Accordingly, the dependent Claims 54-55 are all also allowable as being dependent on an allowable base claim.

The independent Claim 56 is directed to a method of operating a multimedia contact center. The method comprises the steps of: receiving, by a media router, a contact of a media type particular to the media router; sending, by the media router, the contact to a workflow subsystem particular to the media type of the contact; initiating, by the workflow subsystem, a workflow for the contact; sending, by the workflow for the contact, a request for an agent to

handle the contact to the workflow subsystem; requesting, by the workflow subsystem, an agent from an automatic contact distributor; allocating, by the automatic contact distributor, an agent to the contact; sending, by the automatic contact distributor, an identifier for the agent allocated to the contact to the workflow subsystem; receiving, by the workflow subsystem, the identifier for the agent; sending, by the workflow subsystem, the identifier for the agent to the media router; and routing, by the media router, the contact to the agent allocated to the contact.

Claim 57 is dependent on the independent Claim 56. As discussed above, the independent Claim 56 is allowable over the teachings of Neumann. Accordingly, the dependent Claim 57 is also allowable as being dependent on an allowable base claim.

The independent Claim 58 is directed to a computerized server for a digital multimedia contact center comprising: a processing unit; a memory coupled to the processing unit through a bus; a network interface coupled to the processing unit through the bus and further operable for coupling to a network; a media router executed from the memory to cause the processing unit to receive a contact of a media type particular to the media router from the network interface, to send the contact to a workflow subsystem particular to the media type of the contact, and to route the contact to an agent identified by the workflow subsystem through the network interface; the workflow subsystem executed from the memory to cause the processing unit to initiate a contact workflow for the contact received from the media router, to request an agent from an automatic contact distributor, to receive an identifier for an agent from the automatic contact distributor, and to send the identifier for the agent to the media router; the contact workflow executed from the memory to cause the processing unit to send a request for an agent to handle the contact to the workflow subsystem; and the automatic contact distributor to cause the processing unit to allocate an agent to the contact and to send the identifier for the agent allocated to the contact to the workflow subsystem. As described above, Neumann does not disclose a workflow subsystem executed from the memory to cause the processing unit to initiate a contact workflow for the contact received from the media router. Neumann also does not disclose an automatic contact distributor to cause the processing unit to allocate an agent to the contact and to send the identifier for the agent allocated to the contact to the workflow subsystem. For at least these reasons, the independent Claim 58 is allowable over the teachings of Neumann.

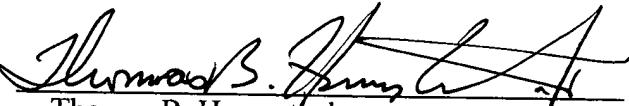
Claim 59 is dependent on the independent Claim 58. As discussed above, the independent Claim 58 is allowable over the teachings of Neumann. Accordingly, the dependent Claim 59 is also allowable as being dependent on an allowable base claim.

The independent Claim 60 is directed to a computerized client for a multimedia contact center comprising: a processing unit; a memory coupled to the processing unit through a bus; a network interface coupled to the processing unit through the bus and further operable for coupling to a network; and an agent desktop executed from the memory to cause the processor to receive a login by an agent, to send agent information to an agent subsystem through the network interface, to receive a contact from the network interface, and to send the contact to an appropriate subsystem for processing. As described above, Neumann does not disclose an agent desktop causing a processor to send agent information to an agent subsystem through the network interface, to receive a contact from the network interface, and to send the contact to an appropriate subsystem for processing. For at least these reasons, the independent Claim 60 is allowable over the teachings of Neumann.

For these reasons, Applicant respectfully submits that all of the Claims 1-60 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 2-14-05

By: 
Thomas B. Haverstock
Reg. No. 32,571
Attorneys for Applicant(s)

CERTIFICATE OF MAILING (37 CFR § 1.8(a))

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